CLAIMS:

1. A method of forming a capacitor structure, comprising:

forming a first electrical node;

forming a layer of metallic aluminum over the first electrical node;

transforming at least some the metallic aluminum within the layer of metallic aluminum to AlN or AlON; wherein the listed compounds are described in terms of chemical constituents rather than stoichiometry; the transformed layer being a dielectric material over the first electrical node; and

forming a second electrical node that is electrically separated from the first electrical node by at least the dielectric material; the first electrical node, second electrical node and dielectric material together defining at least a portion of a capacitor structure.

2. The method of claim 1 wherein the at least some of the layer is converted to AlN.

3. The method of claim 1 wherein the at least some of the layer is converted to AlON.

4. A method of forming a capacitor structure, comprising:

forming a first electrical node;

forming a layer of metallic aluminum over the first electrical node;

transforming an entirety of the metallic aluminum within the layer of metallic aluminum to AlN, AlON, or AlO; wherein the listed compounds are described in terms of chemical constituents rather than stoichiometry; the transformed layer being a dielectric material over the first electrical node; and

forming a second electrical node that is electrically separated from the first electrical node by at least the dielectric material; the first electrical node, second electrical node and dielectric material together defining at least a portion of a capacitor structure.

5. The method of claim 4 wherein the transforming occurs at a temperature which does not exceed 200°C.

6. The method of claim 4 wherein the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlN.

7. The method of claim 4 wherein the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlN to form a resulting AlN layer; the resulting AlN layer having a thickness of from about 20Å to about 40Å.

8. The method of claim 4 wherein the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlN to form a resulting AlN layer; and further comprising:

forming a second layer of metallic aluminum on the resulting AlN layer; and

transforming an entirety of the second layer of metallic aluminum to AlON to form a resulting AlON layer.

9. The method of claim 8 wherein the resulting layer of AlN has a thickness of from about 10Å to about 20Å, and wherein the resulting layer of AlON has a thickness of from about 10Å to about 20Å.

10. The method of claim 4 wherein:

the first electrical node comprises conductively doped silicon;

the layer of metallic aluminum is formed on the first electrical node; and

the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlN to form a resulting AlN layer; the resulting AlN layer having a thickness of from about 20Å to about 40Å.

11. The method of claim 4 further comprising forming a layer of silicon dioxide between the first electrical node and the layer of metallic aluminum; and wherein:

the first electrical node comprises conductively doped silicon;

the layer of silicon dioxide is formed on the first electrical node;

the layer of metallic aluminum is formed on the layer of silicon dioxide; and

the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlN to form a resulting AlN layer.

12. The method of claim 11 wherein the resulting AlN layer has a thickness of from about 20Å to about 40Å.

13. The method of claim 11 wherein the layer of silicon dioxide has a thickness of greater than 0Å and less than or equal to about 15Å.

14. The method of claim 11 further comprising:

forming a second layer of metallic aluminum on the resulting AlN layer; and

transforming an entirety of the second layer of metallic aluminum to AlO to form a resulting AlO layer.

15. The method of claim 14 wherein the resulting layer of AlN has a thickness of from about 5Å to about 15Å; wherein the resulting AlO layer has a thickness of from about 5Å to about 15Å; and wherein the layer of silicon dioxide has a thickness of from about 5Å to about 15Å.

16. The method of claim 4 wherein the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlON.

17. The method of claim 4 wherein the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlON to form a resulting AlON layer; the resulting AlON layer having a thickness of from about 20Å to about 40Å.

18. The method of claim 4 wherein:

the first electrical node comprises conductively doped silicon;

the layer of metallic aluminum is formed on the first electrical node; and

the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlON to form a resulting AlON layer; the resulting AlON layer having a thickness of from about 20Å to about 40Å.

19. The method of claim 4 further comprising forming a layer of silicon dioxide between the first electrical node and the layer of metallic aluminum; and wherein:

the first electrical node comprises conductively doped silicon;

the layer of silicon dioxide is on the first electrical node;

the layer of metallic aluminum is on the layer of silicon dioxide; and

the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlON to form a resulting AlON layer.

20. The method of claim 19 wherein the layer of silicon dioxide is formed before forming the layer of metallic aluminum.

21. The method of claim 19 wherein the resulting AlON layer has a thickness of from about 10Å to about 20Å.

22. The method of claim 19 wherein the layer of silicon dioxide is formed after forming the layer of metallic aluminum and during the transforming of the layer of metallic aluminum.

23. The method of claim 19 wherein the layer of silicon dioxide has a thickness of greater than 0Å and less than or equal to about 15Å.

24. The method of claim 4 wherein the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlO.

25. The method of claim 4 wherein the transforming comprises transforming an entirety of the metallic aluminum within the layer to AlO to form a resulting AlO layer; the resulting AlO layer having a thickness of from about 10Å to about 20Å.

26. The method of claim 4 further comprising providing a transistor adjacent the capacitor structure; the transistor and a capacitor structure together defining a DRAM cell comprising the transistor and the capacitor structure.

27. A capacitor structure, comprising:

a first electrical node;

a second electrical node; and

a capacitor dielectric region operatively positioned between the first and second electrical nodes, the dielectric region comprising a dielectric material which consists essentially of aluminum, oxygen and nitrogen;.

28. The capacitor structure of claim 27 wherein the dielectric material comprises a thickness of from about 20Å to about 40Å.

29. The capacitor structure of claim 27 wherein the dielectric material is on the first electrical node.

30. The capacitor structure of claim 27 wherein the dielectric material is on the first electrical node, and wherein the first electrical node comprises silicon.

31. The capacitor structure of claim 27 wherein the dielectric material is on the first electrical node, and wherein the second electrical node is on the dielectric material.

32. The capacitor structure of claim 27 wherein the dielectric material is on the first electrical node, wherein the second electrical node is on the dielectric material, and wherein the first and second electrical nodes comprise silicon.

33. The capacitor structure of claim 27 wherein the dielectric material is separated from the first electrical node by a layer of silicon dioxide.

34. The capacitor structure of claim 33 wherein the dielectric material comprises a thickness of from about 10Å to about 20Å; and wherein the silicon dioxide comprises a thickness of from about 5Å to about 15Å.